

Photosynthesis Exploration lab

Name: _____ Date: _____

Group Role: _____ Section: _____

Pre - Lab questions:

1) What is a chloroplast?

2) What is chlorophyll?

3) What is a stomata?

Problem: How do water - based plants compare to land - based plants when using photosynthesis?

Hypothesis:

Materials: elodia, lettuce, slides, microscope

Elodia

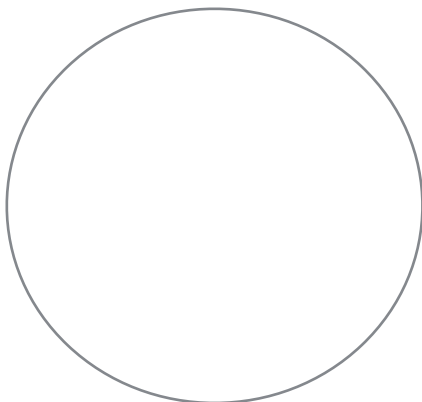
Procedure:

Collect the leaf of an elodia plant and place it on a slide.

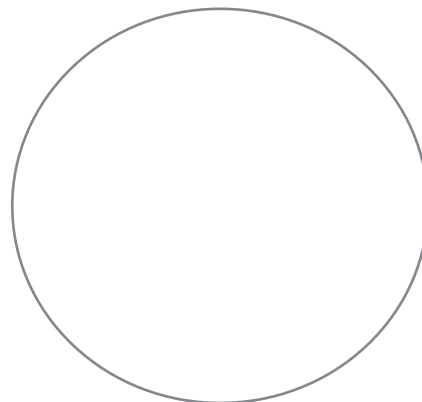
Mount the slide on a microscope and sketch what you see under low and high power.

Label the cell wall, chloroplasts, nucleus, and cytoplasm in your high power sketch.

Low Power



High Power



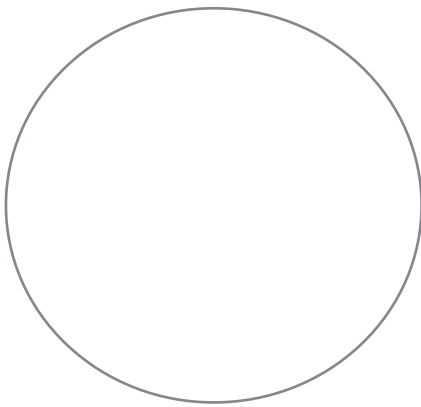
Lettuce

Procedure:

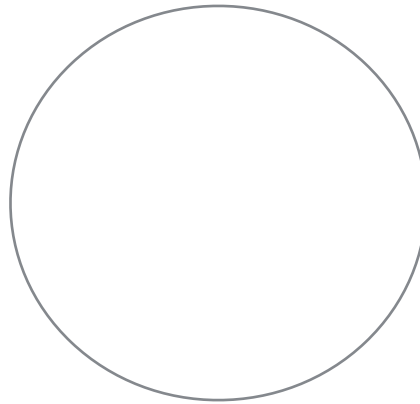
Collect the leaf of an lettuce plant and place it on a slide.

Mount the slide on a microscope and sketch what you see under low and high power.

Label the cell wall, chloroplasts, nucleus, and cytoplasm and stoma in your high power sketch.



Low Power



High Power

Analyze and Conclude:

4) Compare and contrast the elodia and the lettuce plant based on organelles, size and shape.

5) Which leaf was easier to examine? Give reason why you think it was so hard to examine.

6) Which plant had the most stoma visible? Why do you think that was the case?

7) Did the data you collected support your hypothesis? Give evidence to support your answer.